



UNIVERSITY OF MINNESOTA
DOCUMENTS

JUN 22 1984

ST. PAUL CAMPUS LIBRARIES

Egg Production Costs

Hal Routhe and Robert Berg

Efficient, low-cost egg production is essential for a profitable laying operation in Minnesota. Compare your production costs with the average costs given in the following tables. Try to spot the weak points in your program.

Pullet Cost

Table 1. Costs of Raising Replacements
(15-Percent Death Loss)

	per pullet housed
Chick cost (115 chicks per 100 pullets housed, each \$.50)	\$.62
Feed	.73
Miscellaneous cost	.13
Interest	.05
Depreciation, buildings, and equipment	.10
	<u>\$1.63</u>
Labor (\$.25 per hour per pullet)	.25
Total cost per pullet housed, including labor at \$1 per hour	<u>\$1.88</u>

The \$1.88 per pullet housed, as shown in table 1, includes the chick, feed, miscellaneous cost, interest, depreciation, and labor. With a 15-percent death loss in the replacement as well as in the laying flock, an operator would have to start 127 chicks to house 108 pullets to get an average of 100 hens in the laying flock. For this reason the pullet cost per hen in the laying flock is \$2.03 instead of \$1.88. A 5-percent reduction in death loss will reduce costs 1/2 cent per dozen.

Table 2 shows the operating, ownership, and labor costs of producing eggs in Minnesota.

Table 2. Costs of Producing Eggs in Minnesota, 1959 (Laying Flock Only)*

	Per hen dollars	Per dozen eggs cents
OPERATING COST		
Pullet cost	2.03	11.3
Feed (6.1 lbs./ doz. at 2.5¢ per lb.)	2.73	15.2
Miscellaneous cost	.25	1.4
Total	<u>5.01</u>	<u>27.9</u>
Less cull sales	.45	2.5
Net operating cost	<u>4.56</u>	<u>25.4</u>
OWNERSHIP COST		
Interest		
Building (6 percent)	.06	.3
Equipment (6 percent)	.09	.5
Depreciation		
Building (3 percent)	.06	.3
Equipment (10 percent)	.30	1.6
Maintenance, insurance, taxes	.12	.7
Total ownership	<u>.63</u>	<u>3.4</u>
Total operating and ownership	<u>5.19</u>	<u>28.8</u>
LABOR COST		
One hour per hen at \$1 per hour	1.00	5.5
TOTAL COST	<u>6.19</u>	<u>34.3</u>

* Adapted from various cost-of-production studies. Costs are based on: flock size - 300 to 500 hens; rate of lay - 216 eggs per hen; death loss - 15 percent during the laying year. Data are on a per average hen basis during the laying year. Capital investment is \$5 per bird.

Feed Cost

Feed is the largest single expense in egg production, amounting to almost half the total cost. If your feed cost per dozen is high, look for the following:

1. High price of feed.
2. Low egg production.
3. Wastage of feed.
4. Low feed requirements.

Improving feeding efficiency to 5 pounds of feed per dozen will reduce feed cost by 2.5 cents per dozen eggs produced.

Miscellaneous Costs

Miscellaneous costs include litter, medicine, electricity, water, and power. Except for medicine, these are largely fixed costs. Increasing the rate of lay is the best way to hold these costs down.

Ownership Costs

Paid-for buildings and equipment are not cash costs. If borrowed funds are being repaid, buildings and equipment are cash costs; on most diversified poultry farms, however, they are not cash costs. These costs should be considered in a continuing poultry operation since the capital could have been invested in some other way. Reduction of ownership costs by \$1 per hen would decrease egg cost almost 1 cent per dozen.

Since ownership costs are fixed, the cost per dozen eggs may be reduced in the following ways:

1. Use of low-cost, adequate buildings and equipment.
2. Use of adequate existing buildings.
3. Capacity utilization of buildings and equipment.
4. Reduction of ownership costs.
5. Increased rate of lay.

Labor Costs

Another way of looking at table 2 is to consider the difference between the cost per dozen (28.8 cents) and the price as labor and management return. Much is made of mechanization to reduce labor costs. It will pay to mechanize only if the benefits received in reduction of labor more than pay for the cost of ownership. In some cases mechanical equipment can be justified because of a person's physical condition or a shortage of labor.

Note that total net operating cost per dozen eggs is about 25 cents. Your decision on whether to continue the laying operation for another year should be based on this figure. Since ownership costs are fixed (that is, they will be there whether the laying house is full or not) any return above

25 cents can be applied toward labor and ownership costs.

During the laying year the pullet costs are also fixed. Therefore, the decision of whether to continue to produce eggs for the rest of the year should be based on the out-of-pocket cost. As long as the price is enough above this figure to make the effort worthwhile, it will pay to continue, since the difference between the cost and the price will partially recover the fixed costs of the pullet, ownership, and labor.

Total cost of 34 cents per dozen includes a reasonable charge for labor. This total cost should be considered when comparing the income opportunities from a laying enterprise to other enterprises on a long-time basis.

Careful management can reduce costs of egg production as much as 8 cents per dozen.

What Size Flock?

One study indicates that, when all costs are considered, costs per dozen eggs declined sharply up to about 800 hens. Beyond this size cost advantages per dozen eggs produced were smaller. Cost reduction in larger flocks is basically the result of efficient labor costs.

For a family-operated farm, the optimum flock size should be based on the labor available. If family labor and buildings are available and not used in some other productive way, a well-managed flock below 800 hens can be justified.

In considering expansion beyond your present buildings and labor supply, it is very important to see how the labor and capital compete with other enterprises. For your farm consider the following questions:

1. What is the added investment needed?
2. What repayment schedule is required?
3. What are the added total expected costs?
4. How much added labor is required? Is labor available in the family?
5. What returns can be expected?
6. Are other enterprises more profitable?
7. What is the effect on family living?

Only you as a producer can answer all these questions.

UNIVERSITY OF MINNESOTA, INSTITUTE OF AGRICULTURE
ST. PAUL 1, MINNESOTA

Cooperative Extension work in Agriculture and Home Economics, University of Minnesota, Agricultural Extension Service and United States Department of Agriculture Cooperating, Skull Rutford, Director. Published in furtherance of Agricultural Extension Acts of May 8 and June 30, 1914.